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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,147	01/25/2007	Tomoyasu Sunaga	17155/005001	6796
22511	7590	09/23/2011	EXAMINER	
OSHA LIANG L.L.P. TWO HOUSTON CENTER 909 FANNIN, SUITE 3500 HOUSTON, TX 77010			BOHATY, ANDREW K	
			ART UNIT	PAPER NUMBER
			1786	
			NOTIFICATION DATE	DELIVERY MODE
			09/23/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/589,147

Applicant(s)

SUNAGA ET AL.

Examiner

ANDREW K. BOHATY

Art Unit

1786

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 September 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1 and 5.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Jennifer A Chriss/
Supervisory Patent Examiner, Art Unit 1786

/A. K. B./
Patent Examiner, Art Unit 1786

Continuation of 11. does NOT place the application in condition for allowance because: the amendment was entered because the amendment does not change scope of the claimed previously searched and considered. Also, the amendment overcomes the objection of the specification that the title is not descriptive as set forth in the Office action mailed July 14, 2011.

Applicant's arguments filed September 14, 2011 have been fully considered but they are not persuasive.

In response to the applicant's arguments that the chlorine content to the amount of metal compounds is a critical factor, the applicant has not provided any evidence to support this statement. When one looks at Tables 1, 2, and 3 in the applicant's specification, it is clearly seen that when each type of impurity is at its lowest amount the maximum current efficiency is at the highest value. This corresponds to sample 1 in Table 1, sample 7 in Table 2, and sample 13 in Table 3. These results show that compounds that have the lowest amount of impurities have the greatest current efficiency. This agrees with the position of the examiner and is not unexpected.

Furthermore, when looking at samples 1-3 in Table 1, one cannot determine if it is the total amount of impurities present causing the decrease in current efficiency or if it is due to the amount of metal ions being less than the amount of Cl ions. In samples 1-3 not only does the amount of each ion changes but the total amount of ions present changes; therefore, one cannot conclude what is causing the change in maximum current efficiency. Therefore, one cannot determine what is causing the applicant's results.

When comparing samples 4 and 6 in Table 1, the difference in current efficiency is very small and the sample where the total amount of metal ions is greater than chloride ions actually has a greater current efficiency; therefore, having the total amount of metal ions be greater than the total amount of chloride ions might not be the cause in the increased current efficiency. When looking at Table 1, it appears that the samples with the lowest amount of impurities has the highest current efficiency and it is hard to tell what rolls the amount of total metal ions to chlorides ions has on the current efficiency in data presented by the applicant. Therefore, the applicant's arguments that the invention shows unexpected results is not persuasive because one cannot tell from the data presented what is causing the improved performance.

Also, 2144.04 section VII of the MPEP states "Pure materials are novel vis- à-vis less pure or impure materials because there is a difference between pure and impure materials. Therefore, the issue is whether claims to a pure material are unobvious over the prior art. In *re Bergstrom*, 427 F.2d 1394, 166 USPQ 256 (CCPA 1970). Purer forms of known products may be patentable, but the mere purity of a product, by itself, does not render the product unobvious. *Ex parte Gray*, 10 USPQ2d 1922 (Bd. Pat. App. & Inter. 1989)." Since the applicant's have not provided evidence that can clearly show that there claimed invention shows unexpected results, since the claimed polymers are known in the art and are purer forms of the known polymers, the claims are not unobvious over the prior art and are not patentable. Since the applicant's have not provided evidence that can clearly show that there claimed invention shows unexpected results, since the claimed polymers are known in the art and are purer forms of the known polymers, the claims are not unobvious over the prior art and are not patentable. The applicant's results are not unexpected because Miteva in view of Treacher, Son, and AAPA teaches that one of ordinary skill in the art would expect to the efficiency of the device to increase as the amount of the impurities decreases and this is what the applicant shows in the examples.